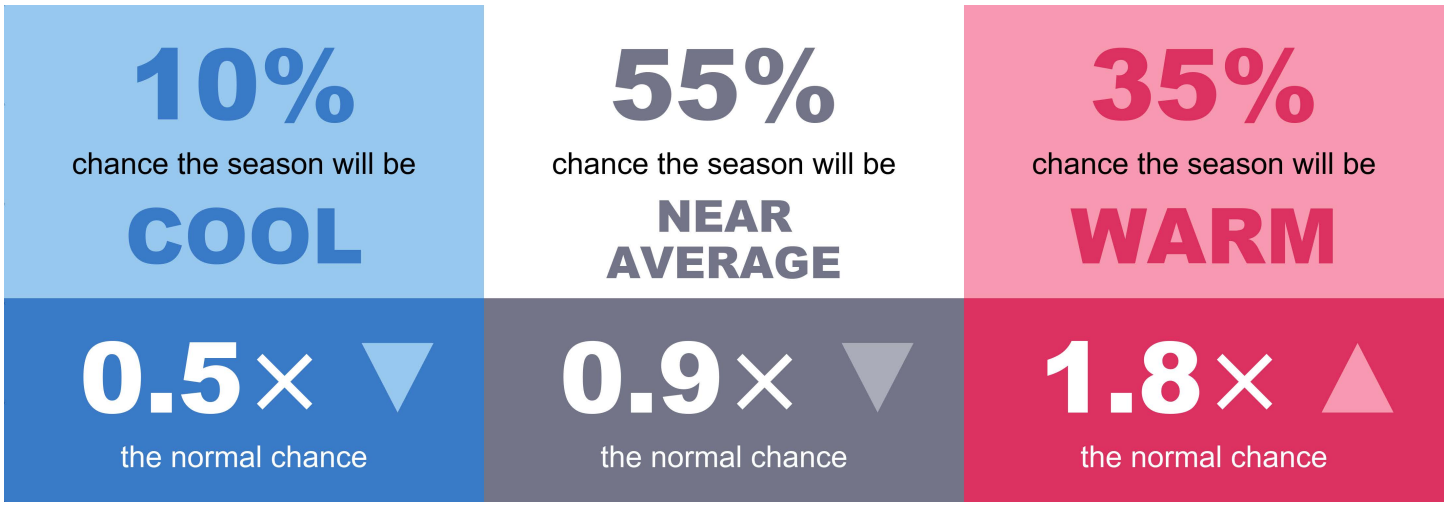
3-month summary

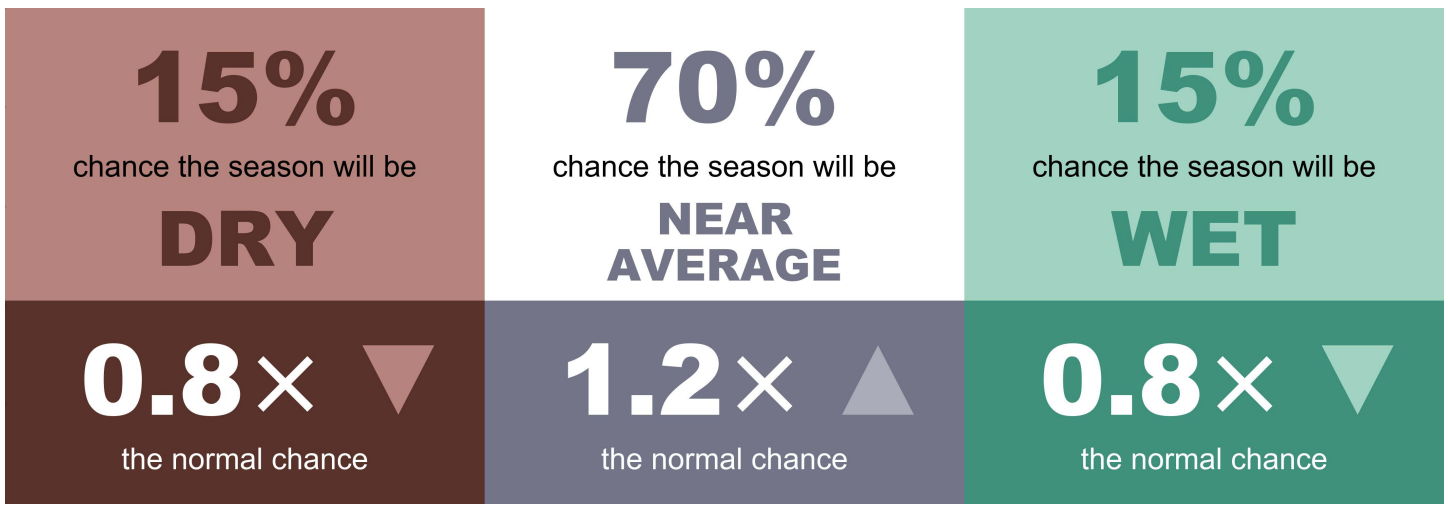
• The period is most likely to be warm, with almost twice the normal chance.
• The likelihoods of wet and dry conditions are equal and near normal.
• Near Average precipitation is most likely, but may mask a northwest (wetter) to southeast (drier) gradation in overall rainfall amounts.

3-month likelihood of impact

Temperature



Precipitation



1-month summary

- August is more likely to be hot than cool.
- Slightly greater than normal chance of heatwaves and hot weather impacts.
- The likelihoods of wet and dry conditions overall are normal, however dry conditions are more likely across southern areas at first.
- Significant local variations in rainfall due to thunderstorms, especially in the south, are possible.

1-month likelihood of impact

Temperature

10%	65%	25%
chance the month will be COOL	chance the month will be NEAR AVERAGE	chance the month will be HOT
0.5× ▼ the normal chance	1.1× ▲ the normal chance	1.3× ▲ the normal chance

Precipitation

20%	60%	20%
chance the month will be DRY	chance the month will be NEAR AVERAGE	chance the month will be WET
1.0× ▲▼ the normal chance	1.0× ▲▼ the normal chance	1.0× ▲▼ the normal chance

Understanding the Outlook

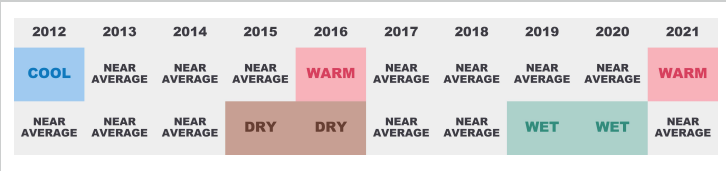
The Outlook uses 3 categories for possible UK temperature and precipitation in the next 1 and 3 months:

COOL, NEAR AVERAGE and WARM for 3-month temperature
COOL, NEAR AVERAGE and HOT for 1-month temperature
WET, NEAR AVERAGE and DRY for precipitation

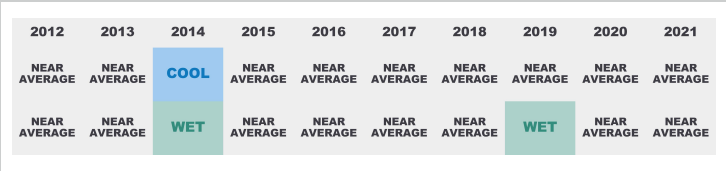
These are linked to observed UK conditions in past years. The NEAR AVERAGE category represents typical conditions for the period and has a normal likelihood of 60%. The higher and lower categories represent more unusual conditions that are more likely to produce impacts. Each has a normal likelihood of 20%.

The Outlook shows how the chances of occurrence of the categories differ from normal, based on knowledge of expected global meteorological patterns. It does not identify which category will actually occur.

Same 3-month period over the last 10 years


2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
COOL NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WARM NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WARM
NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE DRY DRY NEAR AVERAGE NEAR AVERAGE WET WET NEAR AVERAGE

Same 1-month period over the last 10 years


2012 2013 2014 2015 2016 2017 2018 2019 2020 2021
NEAR AVERAGE NEAR AVERAGE COOL NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE
NEAR AVERAGE NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE NEAR AVERAGE WET NEAR AVERAGE NEAR AVERAGE

Outlook in context

Drivers of UK weather for August to October

Global weather patterns affect UK weather, and their influence acts to change the chances of the categories in the Outlook.

Drivers relevant to the current Outlook are:
• Sea-surface temperatures around the UK are above average, favouring above average land temperatures.
• Atlantic Tropical Cyclones – the season usually peaks in August/September, and is forecast to have average to above average activity (partly in response to prevailing La Nina conditions); this acting to reduce confidence in the forecast.

Long-range weather predictions
The Met Office and other prediction centres around the world routinely produce long-range predictions of conditions in the months ahead. Predictability is typically lower at this time of year, with sometimes conflicting signals evident in current model output. The main signals for August are for high pressure to extend northeast towards the UK at times, with lower pressure to the south, suggesting a rather slack, sometimes blocked pressure pattern with increased risk of thunderstorms in the south and a slight tendency towards hot conditions. This is most likely to trend towards a more westerly flow regime through September and October, leading to a balanced rainfall outlook most likely following a climatological distribution. With warmer than average sea surface temperatures in the vicinity of the UK, the chances of a warm August to October are almost twice normal chance.

Impact
Given these trends, there is a slightly increased likelihood of impacts from hot weather during August; especially given the dry antecedent conditions of the past few months. On a local scale, further impacts from summer thunderstorms, such as flooding, remain possible. An increased chance of warm conditions through August to October is consistent with an increased westerly flow from warmer than average seas, and our warming climate. With a typical northwest (wetter) to southeast (drier) gradation in rainfall most likely, there are no strong signals for a significant amelioration of current dry conditions.

Outlook compared to normal likelihood

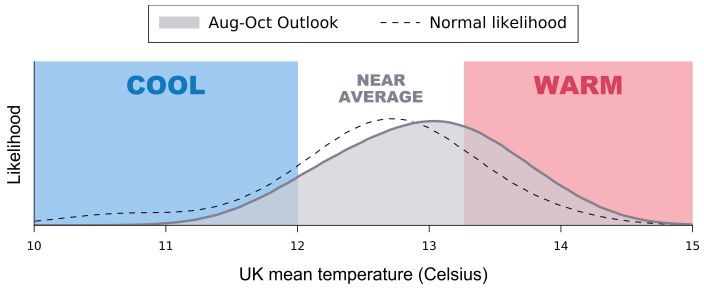
The curves below show the likelihood of the 1- and 3-month average temperature and precipitation taking specific values. In each case:

- The dashed curve shows the normal likelihood based on how often each value has been recorded in past years
- The solid curve shows the current likelihood based on the Outlook for this year

The differences in these curves show how the probabilities for the coming periods differ compared to past years. Where the solid curve (corresponding to this year's Outlook) lies above the dashed curve (normal likelihood), the temperature or precipitation at that point has a greater-than-normal likelihood of occurring. Likewise, wherever it is below the dashed curve, the likelihood of those values is less than normal.

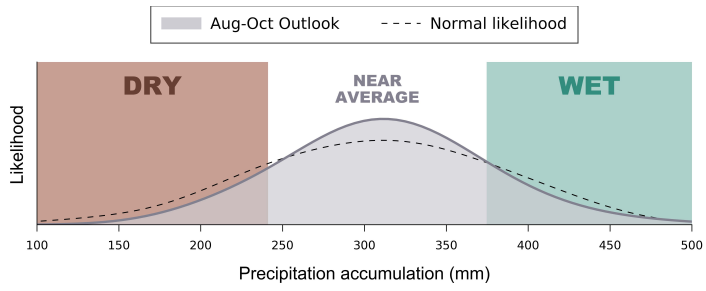
A shift of the solid curve to the left of the dashed curve indicates an increase in the chance of below-average temperature or precipitation. A shift to the right, meanwhile, indicates increased chances of above-average values.

3-month temperature Outlook compared to normal



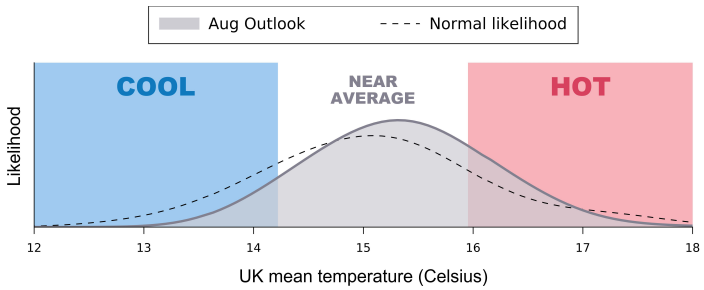
Likelihood leans moderately towards warm conditions

3-month precipitation Outlook compared to normal



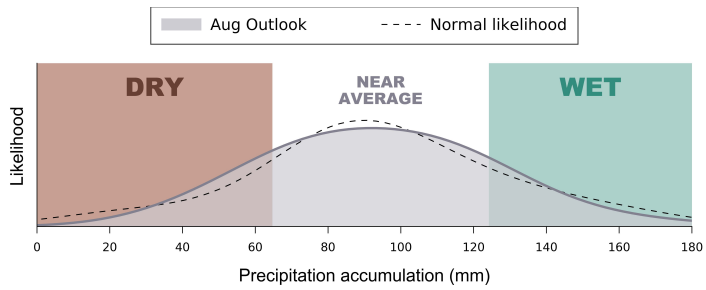
Likelihoods of wet and dry are relatively similar to normal

1-month temperature Outlook compared to normal



Likelihood leans slightly towards warm conditions

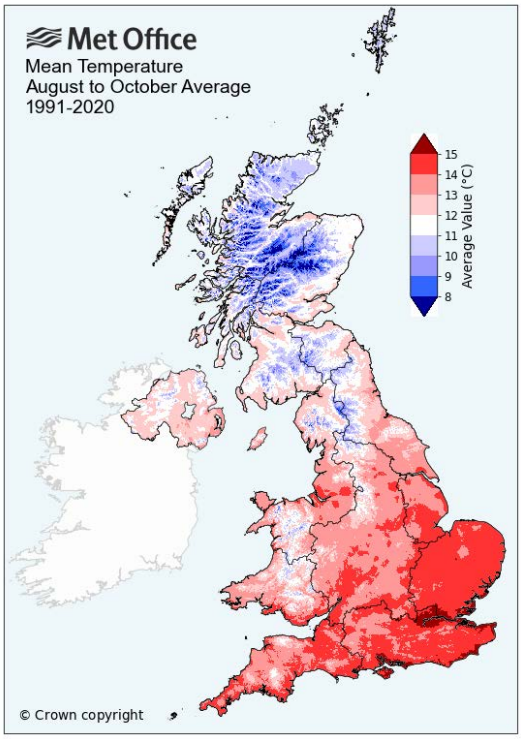
1-month precipitation Outlook compared to normal



Likelihoods of wet and dry are normal

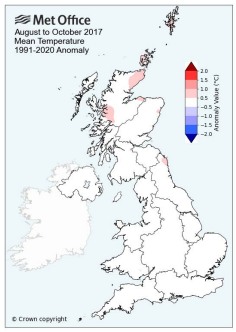
Long-term average temperatures (3-month)

This page shows the long-term average temperatures across the UK for the 3-month Outlook period. Long-term average temperatures for the 1-month period are on page 6. Long-term precipitation averages are shown on pages 7 (3-month) and 8 (1-month).

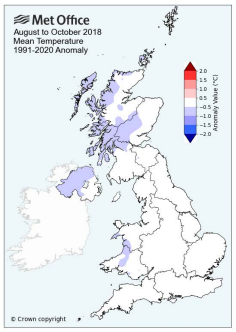


Average temperatures for August - October based on observations from past years.

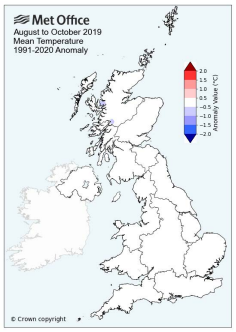
Last 5 years' temperatures, difference from average (3-month)



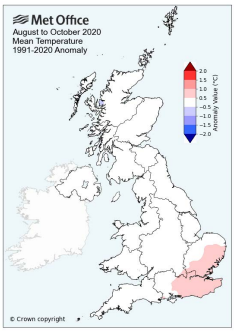
Aug-Oct 2017



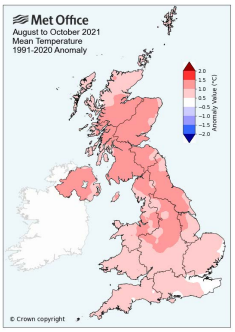
Aug-Oct 2018



Aug-Oct 2019



Aug-Oct 2020



Aug-Oct 2021

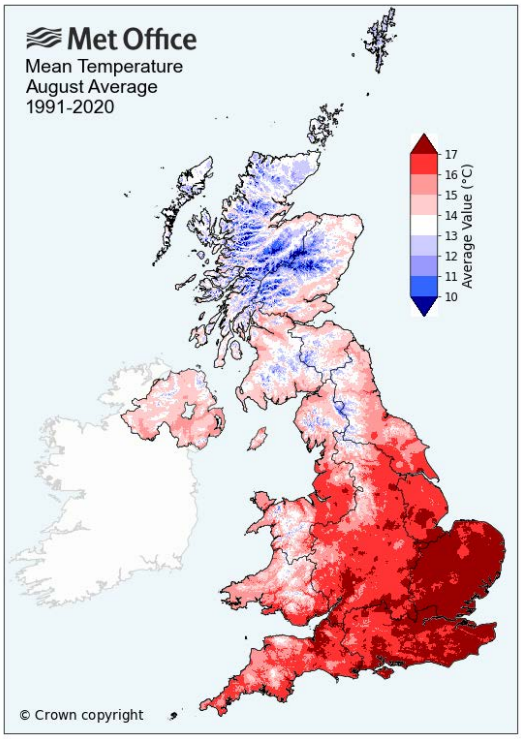
Anomaly (ºC)

< -2.0	-2.0 to -1.5	-1.5 to -1.0	-1.0 to -0.5	-0.5 to 0.5	0.5 to 1.0	1.0 to 1.5	1.5 to 2.0	> 2.0

These maps show how August - October temperatures in the last five years differed from the long-term average temperatures shown in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

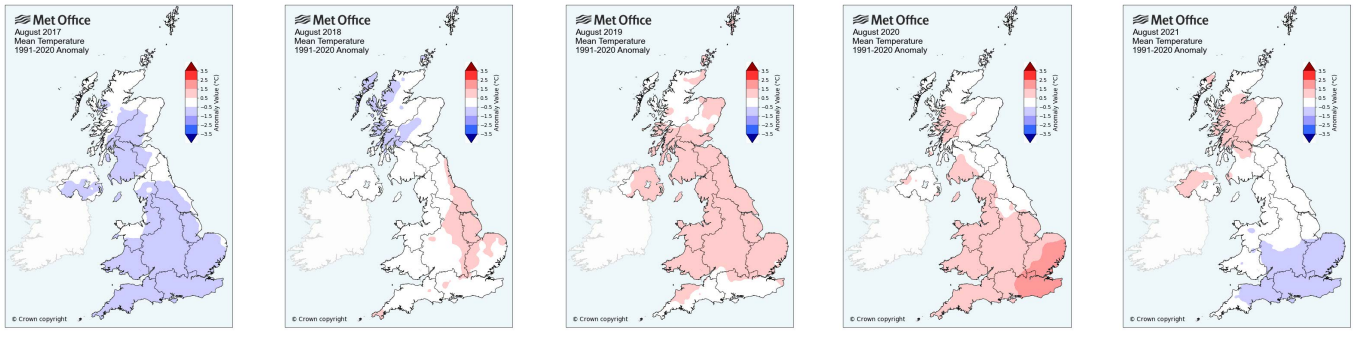
Long-term average temperatures (1-month)

This page shows the long-term average temperatures across the UK for the 1-month Outlook period.



Average temperatures for August based on observations from past years.

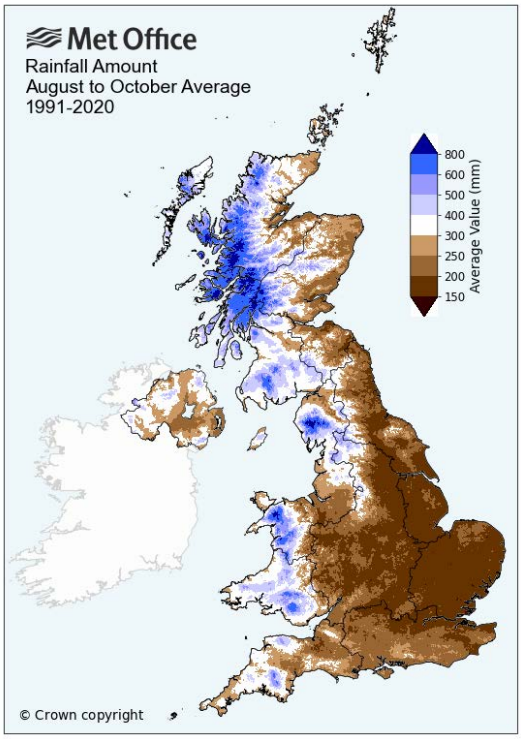
Last 5 years' temperatures, difference from average (1-month)



These maps show how August temperatures in the last five years differed from the long-term average temperatures shown in the upper panel. Pink and red colours indicate warmer-than-average conditions while blue shades indicate cooler-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

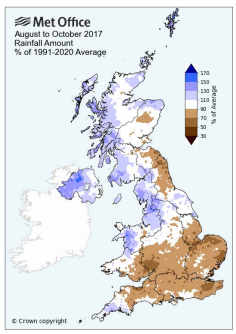
Long-term average precipitation (3-month)

This page shows the long-term average precipitation across the UK for the 3-month Outlook period.

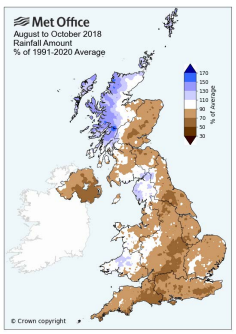


Average precipitation for August - October based on observations from past years.

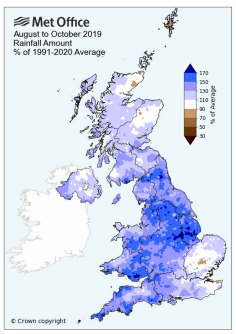
Last 5 years' precipitation, difference from average (3-month)



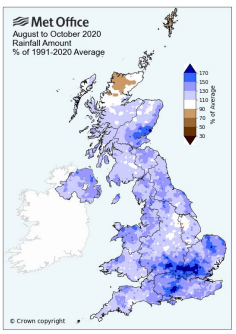
Aug-Oct 2017



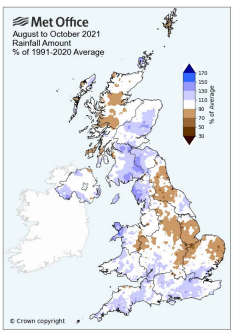
Aug-Oct 2018



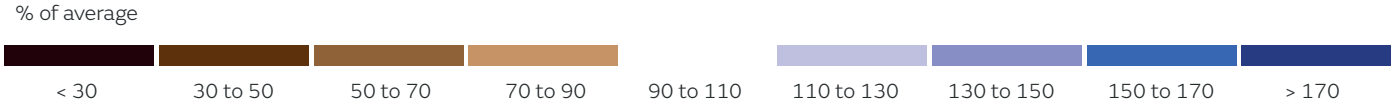
Aug-Oct 2019



Aug-Oct 2020



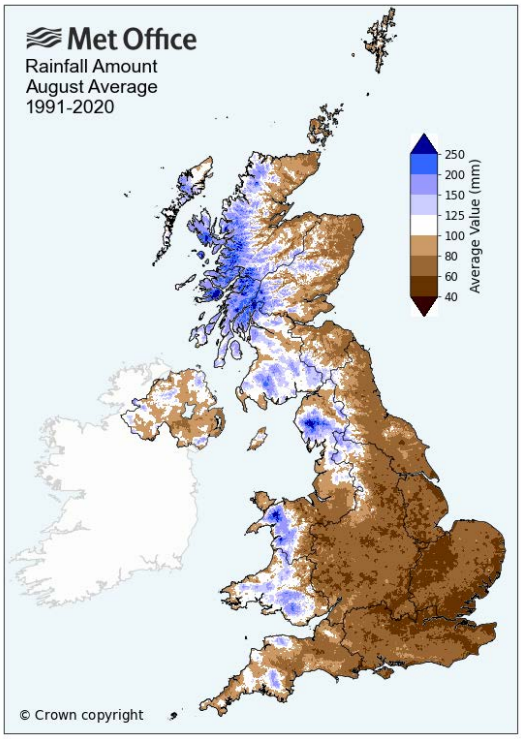
Aug-Oct 2021



These maps show how August - October precipitation in the last five years differed from the long-term average precipitation shown in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

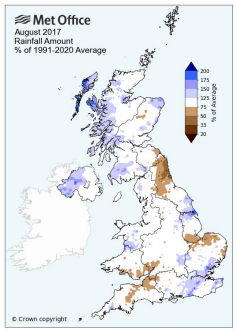
Long-term average precipitation (1-month)

This page shows the long-term average precipitation across the UK for the 1-month Outlook period.

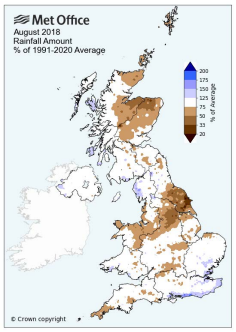


Average precipitation for August based on observations from past years.

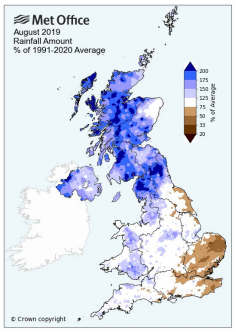
Last 5 years' precipitation, difference from average (1-month)



Aug 2017



Aug 2018



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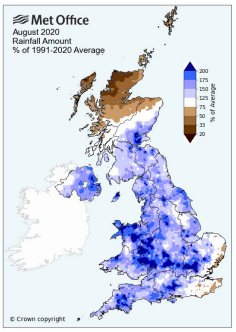
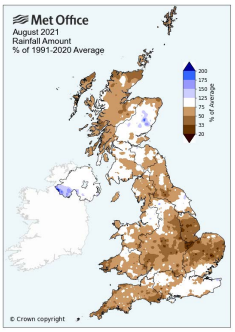


Aug 2020



Aug 2021

% of average

< 20	20 to 33	33 to 50	50 to 75	75 to 125	125 to 150	150 to 175	175 to 200	> 200

These maps show how August precipitation in the last five years differed from the long-term average precipitation shown in the upper panel. Brown colours indicate drier-than-average conditions while blue shades indicate wetter-than-average conditions. Detailed information on the climate of the UK is available at www.metoffice.gov.uk/climate.

Q&A

Q. What is the point of the Outlook, who is it meant for?
A. This Outlook is produced for planners in government and business who make risk-based decisions. These users are aware of the complexities of this type of outlook and will include those factors in their decision-making process.

Q. How did you decide on the Outlook? What are the main factors affecting it?
A. It is based on information from observations, several numerical prediction systems and expert judgement. See the 'Outlook in Context' section of the Outlook for more details.

Q. Is the Outlook for the whole country?
A. The Outlook is for the average of conditions over the UK as a whole. Regional deviations from the UK average can occur. For example, average UK precipitation can result from below-average rainfall for the northwest and above-average for the southeast.

Q. How confident are you in this Outlook?
A. The percentages in the 'Likelihood of Impact' sections of the Outlook give the level of confidence.

Q. Does the increased chance of hotter than average conditions mean we could have more heatwaves?
A. The Outlook suggests the chances of heatwaves are higher than normal, but a range of conditions much less extreme than heatwaves are also possible. The increased chance of hot conditions could just as easily reflect a mix of hot and cool days, warm nights, or less extreme levels of warmth rather than heatwave conditions specifically.

The Outlook does not guarantee prolonged hot weather. Heatwaves do not typically persist throughout a whole three-month period and become less likely as we move towards meteorological autumn.

Q. Will incoming rain affect the chances of a drought?
The Environment Agency, Scottish Environment Protection Agency, Natural Resources Wales, and Northern Ireland Environment Agency, are responsible for monitoring drought risk across England, Scotland, Wales and Northern Ireland respectively.

About the Outlook

The Outlook presented here is for the United Kingdom as a whole and is based on information from observations, several numerical prediction systems and expert judgement. It is updated monthly to reflect the latest information on global weather patterns and their effect on the UK. The Outlook is designed to be used in conjunction with shorter-range forecasts – detailed weather forecast information is available on the Met Office website (https://www.metoffice.gov.uk).

Information for August will be superseded by the long-range information on the public weather forecast web page, starting from 1 August 2022.

In this product, temperature refers to the average of daytime maxima and night-time minima. All numerical values relate to averages (temperature) or totals (precipitation – rain, sleet, snow and hail) over 1 or 3 months, which are further averaged over the UK land area as a whole. Normal likelihood and long-term averages are established using the period 1991-2020.